

Nikon

Capture NX-D Reference Manual for Version 1.2.0

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Save where otherwise stated, illustrations are from Windows 8.1. Default camera and software settings are assumed.

🖉 The links at the top of each page can be used for chapter navigation. Click 🚮 to return to this page.

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Introduction	Viewing Pictures	Filters	Image Adjustment	Other Features	Menu Guide
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What Capture NX-D Can Do for You

Capture NX-D lets you fine-tune pictures by, for example, adjusting brightness and hue, and can also be used to edit RAW images taken with Nikon digital cameras and save them in other formats.

Fine-Tune Pictures

With Capture NX-D, it's easy to adjust such settings as brightness and white balance (page 18). Certain settings, such as exposure compensation and Picture Controls, are available only with RAW images.



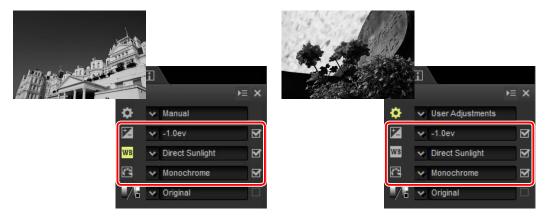
Ø	II.	
Edit		× ≡∢
\$	🤜 Manual	
7	✔ -1.0ev	
WB	✓ Original	
6	🗸 Original	
. /6	V Original	



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٥	V	Manual	1	
Z	*	-1.0ev		⊠
WB		Original		
	~	Monochrome		¥
] /6	~	Original		

Copy Adjustments

Save adjustments and apply them to other images (page 31) or copy them to other computers (page 33). Saved adjustments can be applied to multiple images using batch processing (page 37).

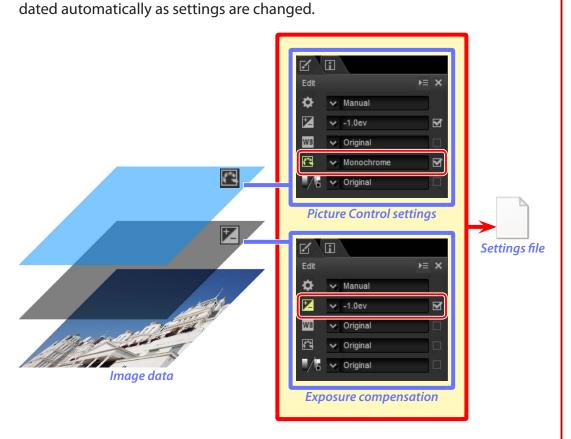


Save Pictures in Other Formats

Fine-tuned or processed RAW (NEF/NRW) images can be saved in JPEG or TIFF formats for use in other applications (page 34).

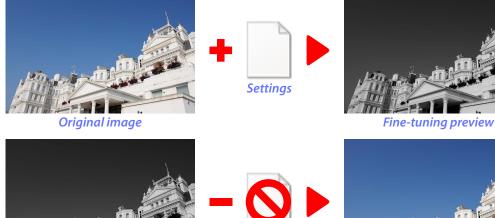


Introduction	Viewing Pictures	Filters	Image Adjustment	Other Features	Menu Guide	
					What Capture NX-D Can Do for Y	'ou
Fine-Tuning Pictures in Capture NX-D Capture NX-D stores image adjustments in a separate "sidecar" file that is up-			the original picture of	settings are stored separate an be restored at any time v	ly from the original image dat vith no drop in quality.	ta,



// Image Adjustments

Image adjustments are stored in a "NKSC_PARAM" folder in the same folder as the original image. All changes will be lost if this folder or the image adjustment file is deleted; similarly, because the image and the image adjustment file are linked via the file name, changes will be lost or applied to another image if the image adjustment file is renamed.

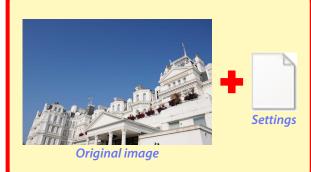






Original image

When files are converted to JPEG or TIFF, the changes are applied to the image as it is saved to create a new, modified image data file.



Fine-tuning preview



JPEG or TIFF file

Filters

Image Adjustment

Hiding Changes Made in Capture NX/Capture NX 2

Capture NX-D can be used in combination with Capture NX and Capture NX 2. To hide changes made using Capture NX or Capture NX 2, click the button in the edit palette (page 7) to display the Version tool and deselect Apply adjustment steps. This applies only to modifications made using the tools in the "Enhancement Steps" (Capture NX) or "Adjust" section (Capture NX 2); images modified using these tools are indicated by is icons in the thumbnail list.



Apply History Setting

The image below has been modified using the **Picture Control** tool in the "Develop" section and the **Gaussian Blur** tool in the "Adjust" section of Capture NX 2. Deselecting **Apply adjustment steps** in Capture NX-D hides only the effects of the "Gaussian Blur" tool.



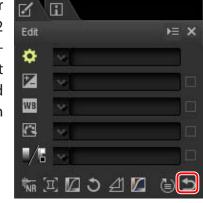
Apply adjustment steps:



Apply adjustment steps:

Unsupported Images

Images that have been modified using the Color Efex Pro plugin for Capture NX or Capture NX 2 can be fine-tuned in Capture NX-D by first resetting all changes using the revert button in the edit palette (page 7). Pictures that have been modified using Color Efex Pro are indicated by **Est** icons in the thumbnail list.



Revert button

🖉 RAW (NEF/NRW) Images

Changes made to RAW (NEF/NRW) images in Capture NX-D, including those made using the revert button, are not reflected in Capture NX or Capture NX 2. RAW (NEF/NRW) images opened in Capture NX or Capture NX 2 will be restored to the state they were in when they were last saved in these applications, regardless of any changes made in the interim using Capture NX-D.

NEF Conversion

JPEG or TIFF images converted to NEF in Capture NX or Capture NX 2 are treated as JPEG or TIFF images in Capture NX-D and can not be modified using options such as exposure compensation (page 20) and white balance (page 21) that apply only to RAW (NEF/NRW) images.

🖉 Auto Retouch Brush (Capture NX 2)

Images modified using the Capture NX 2 auto retouch brush will be marked with a **1** icon in cases in which Capture NX-D is unable to show the tool's effects.

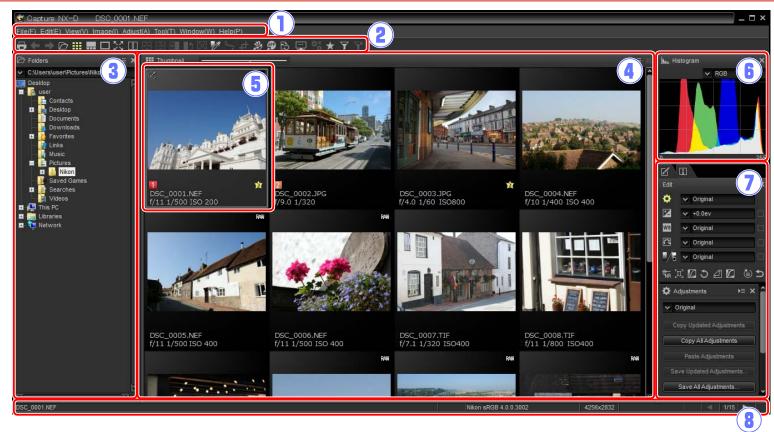


Filters

Image Adjustment



The Capture NX-D Window



1 Menu bar: Access the menus (page 9).

- (2) **Toolbar**: Choose a view and access image adjustment tools (page 8).
- (3) Folder palette: Select a folder to display its contents in the image area (page 6).
- (4) Image area: View the images in the current folder.
- (5) Selected image: Selected images are highlighted in gray, with images that have been modified indicated by a **m** icon at the top left corner of the thumbnail. Double-click to preview (page 10).
- (6) **Histogram palette**: View the tone distribution for the selected image (page 6).
- (7) Edit/metadata palettes: Fine-tune images using the tools in the edit palette or switch to the metadata palette to view image information (page 7).
- (8) **Status bar**: View information on the selected image (page 9).

The Navigation Palette

A navigation (bird's eye) palette (page 6) appears when a preview is displayed by double-clicking a thumbnail in the image area.



Filters

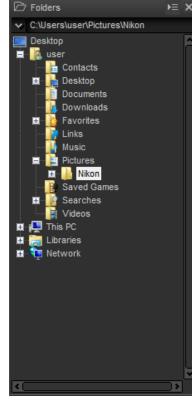


Palettes

Capture NX-D offers the following palettes.

The Folder Palette

The folder palette lists the folders in the computer's storage system. Click a folder to view the images it contains in the image area or preview display.



The folder palette menu gives access to recent folders. Frequently-used folders can be added to and then accessed from this menu.

🗁 Folders	→= ×	
C:\Users\user\Pictures\Nikon		
Register to Menu		
Organize Menu		
C:\Users\user\Pictures\Nikon		
C:\Users\user\Pictures		
C:\Users\user		

Folder palette menu

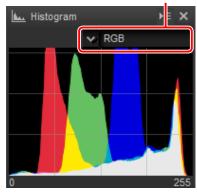
Palette Menus

To access the palette menu, click the triangle (E) at the top right corner of the palette. Select **Undock** to open the palette in a floating window that can be moved freely about the display.

The Histogram Palette

The histogram palette provides a constantly-updated histogram for the selected thumbnail or the image in the preview display. The histogram shows the tone distribution for the color channel selected in the channel menu. Choose **RGB** to view overlapping distributions for the red, green, and blue channels: tone ranges in which the distributions for red and green overlap are shown in *yellow*, those in which red and blue overlap in *magenta*, those in which green and blue overlap in *cyan*, and those in which all three colors overlap in *white*.

Channel menu



The Navigation (Bird's Eye) Palette

The navigation palette is displayed above the folder palette when you double-click a thumbnail to display a preview.



When the preview is zoomed in, the frame in the navigation palette shows the area currently displayed. Drag the frame to view other areas of the preview.



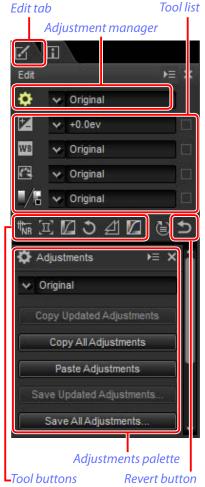
Filters

Image Adjustment

Palettes

The Edit Palette

Use the tools in the edit palette to adjust the image currently selected or previewed in the image area. The tool list (page 18) offers Exposure Compensation, White Balance, Picture Control, and Tone/Tone (Detail) tools that can be accessed via pull-down menus or by clicking the tool icon and adjusting settings in the adjustments palette (page 14). Additional tools can be accessed using the tool buttons (page 19) at the bottom of the palette. The *adjustment manager* tool (page 19) can be used to copy adjustments to other images or save current settings for later use. To reset all tools and restore the image to the state it was in when first opened in Capture NX-D, click the revert button (note that any changes made to JPEG and TIFF images in other applications since they were last opened in Capture NX-D will not be reset).



The Metadata Palette

The metadata palette lists information on the image currently selected or previewed in the image area, including exposure, the model of camera used to record the picture, and the date and time of recording. The metadata palette can be displayed in the position normally occupied by the folder palette (page 6) by selecting **Dock to Left** in the palette menu.

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1	Metadata	Þ≡	×
	Item	Information	A
-	File	e Info 1	
<u>,</u>	File	DSC_0001.NEF	1
	Date Created	5/14/2014 4:54:29	
	Date Modified	11/8/2013 2:14:10	
	File Size	17.0 MB	
	Image Size	L (4928 x 3280), F	
	File	e Info 2	
	Date Shot	11/8/2013 18:14:0	
	Time Zone and	UTC+9, DST:OFF	1
	Image Quality	Lossless Compre	
	Can	nera Info	
	Device	Nikon D4S	
		24-85mm f/3.5-4.5	
	Focal Length	62mm	
	Focus Mode		
	AF-Area Mode	Single	
	VR		
	AF Fine Tune		
	Ex	posure	
	Aperture	f/4.5	
	Shutter Speed		
	Exposure Mod	Manual	Ľ

🖉 The Edit and Metadata Palettes

Use the tabs at the top left corner to switch between the edit and metadata palettes.

Introduction	Viewing Pictures	Filters	Image Adjustment	Other Features	Menu Guide	
The Toolbar						
Use the toolbar to choos	se a view and access image	adjustment tools.	(2 【1 Original	Restore the "before" image to the ments were made.	e state it was in before any adjust-	<u>Page 14</u>
		A The Subgrave And	13 💽 Preview Display Mode	Access the fit, combination, zo zoom ratio for the image in the	om, and hand tools or choose a preview palette.	
			👍 ಶ Gray Point Sample Too	Click a point in the preview to sampled point takes on a neutra	adjust white balance so that the al gray color.	Page 21
		1000 JBG 1000 JBG + 10000 JBG + 1000 JBG + 1000	15 Straighten Tool	Straighten images.		Page 29
			16 🕂 Crop Tool	Crop images.		Page 35
	DSC,0005.NEF DSC,0006.NEF //11 1/500 150 400 //11 1/500 150 400	DSC_0007.TIF f/7.1 1/320 ISO400 f/11 1/800 ISO4000 fw w w w w w w w w w w w w w w w w w w		View the current image or image	es in ViewNX-i. The images are dis-	

$\begin{array}{c} + + & \rhd & \blacksquare & \square & \heartsuit & \square & \square & \square & \square & \blacksquare & \blacksquare & \square & \boxdot & \checkmark & \Rightarrow & \# & \# & \square & \boxtimes & \swarrow & \star & \forall & \uparrow \\ \hline 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 & 11 & 12 & 13 & 14 & 15 & 16 & 17 & 18 & 19 & 20 & 21 & 22 & 23 & 24 \\ \end{array}$

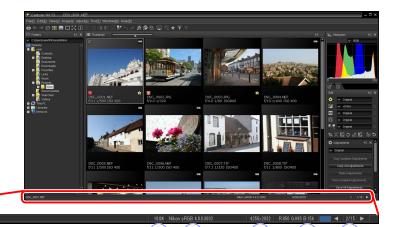
1 martin

1	ē	Print	Print the image currently selected or previewed in the image area.	Page 39
2	+	Back/Foward	Select the folder before or after the current folder.	
3	Þ	Open Folder	Display a dialog where you can navigate to and open a folder.	Page 6
4	Ⅲ	Thumbnail	View the images in the current folder as thumbnails.	<u>Page 10</u>
5		Combination	View a preview at the top of the image area with thumbnails listed underneath.	Page 11
6		Preview	Display the preview only.	<u>Page 10</u>
7	\mathbb{N}	Full Screen	View images full screen.	Page 12
8		Multi Preview	View images side-by-side. Choose from Compare Images and Compare Before and After Images .	Page 13
9	÷	Compare Images	View selected images side-by-side.	Page 13
10	H	Compare Before and After Images	View an image as it appeared before adjustment side-by-side with the adjusted image.	Page 14
1	G	Current	Apply current adjustments to the "before" image for use as a reference when making further modifications.	Page 14

(12)	1 Original	ments were made.	Page 14
13	Preview Display Mode	Access the fit, combination, zoom, and hand tools or choose a zoom ratio for the image in the preview palette.	
14 🛛	Gray Point Sample Tool	Click a point in the preview to adjust white balance so that the sampled point takes on a neutral gray color.	Page 21
(15) ±	Straighten Tool	Straighten images.	Page 29
16 -	🛨 Crop Tool	Crop images.	Page 35
17	Open with ViewNX-i	View the current image or images in ViewNX-i. The images are dis- played in their current state including any changes made using Capture NX-D and, in the case of NEF/NRW (RAW) images, without conversion to TIFF.	
18 🧯	🕑 Open with	Convert images to 16-bit TIFF and open them in an application previously selected using the Register option.	Page 42
19 E	Convert Files	Save images in JPEG or TIFF format. Adjustments are applied before the image is saved.	Page 34
20	Batch Process Status	View batch process status.	<u>Page 37</u>
2) (S	Cancel Batch Process	Cancel batch processing.	
22	Filter by Rating/Label	Filter images by rating or label.	Page 17
23	Filtering	Filter images by rating, label, or camera settings.	Page 17
24	Clear Filtering	End filtering and view all images.	

Introduction	Viewing Pictures	Filters	Image Adjustment
The Status Bar			The Menu Ba
View information on the image selected or proviewed in the image area			Accoss imago adi

View information on the image selected or previewed in the image area.

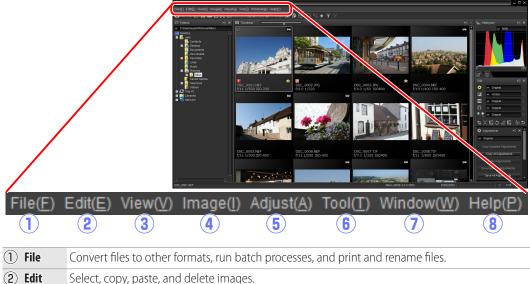


(2) (3) 4 5 (6) \bigcirc DSC_0001.NEF File name The file name. 2 10.6% The zoom ratio at which the preview is currently displayed. Zoom ratio The color space of the image in the preview display. 3 Nikon sRGB 4.0.0.3002 **Color space** 4 The size (in pixels) of the image in the preview display. 4256×2832 Image size The color of the pixel under the cursor in the preview and com-5 R:056 G:095 B:154 Color value bined displays. The position of the current image and the total number of images Position in folder (6) ◀ | 2/15 | ► in the folder. Click or to view other images.



ar

Access image adjustment tools or save images in other formats.



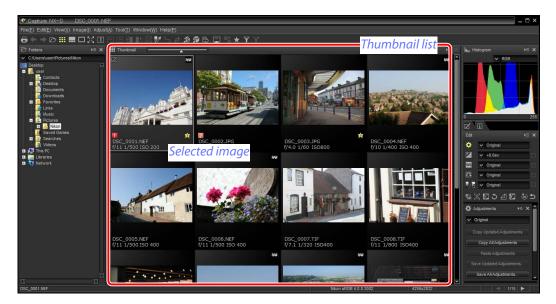
(3) View Choose a view mode, adjust zoom, and sort and select images.

- (4) Image Straighten, rate, and label images or display a grid or the focus point, shadows, or highlights.
- 5 Adjust Copy, paste, save, and load image adjustment settings.
- 6 Tool Access image adjustment tools.
- (7) **Window** View and hide palettes.
- (8) Help View online help or the current software version number.

Introduction	Viewing Pictures	Filters	Image Adjustment	Other Features	Menu Guide	
Viewing Pictures						
Capture NX-D offers the	following viewing options.		Previews			

Thumbnails

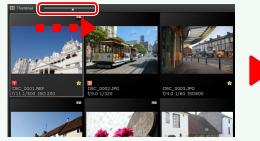
At default settings, Capture NX-D lists the images in the current folder as thumbnails. Selected images are highlighted in gray.



🖉 Thumbnail Size

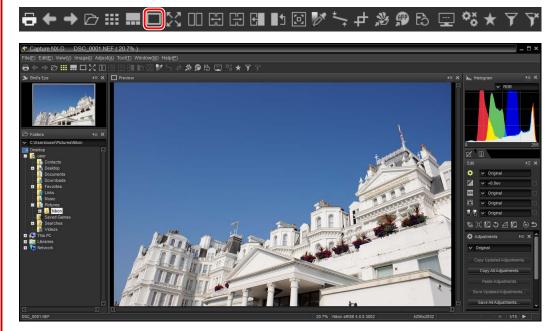
Use the slider above the image area to choose the thumbnail size.

Slider





Double-click a thumbnail or select a thumbnail and click the **D** button in the toolbar to display a preview.



🖉 Returning to the Thumbnail View

To return to the thumbnail view, click the **...** button in the toolbar.

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Same Name, Different Extension

At default settings, if the folder contains two images with the same file names but different extensions (for example, RAW and JPEG images recorded at image quality settings of "RAW + JPEG"), only the RAW image will be displayed. To view all images, select Tool (or on the Mac, Capture NX-D) > Preferences > Show a NEF/NRW image as separate files.

Auto-contrade cip.	
	Black: 0.50
Dropper sample size:	Point sample
Other Settings	
Display preview image fas	ter
Show a NEF/NRW + JPEG	image as separate files
Color reproduction process:	Camera compatible

Introduction	Viewing Pictures	Filters	Image Adjustment	Other Features	Menu Guide
			-		Viewing Pictures
the 🔜 button in the tool	nage with thumbnails abov bar.	e, below, or to one side, click 🕈 🏂 🗊 🔁 😴 🏷 🝸 🏹	The locations of the previe	e Preview and Thumbnail Palettes w and thumbnail palettes can be	Undock Dock to Bottom Dock to Left Dock to Right Close
ClustersuserPolares Main Provider Cutters to provide the providence Cutters to prov			Capture NX-D DSC 0001.NEF (10.2%) File[] Edit[] View/D image[] Adjust[] Toolf] View/ord File[] Edit[] View/Ord File[] View/Ord File[] Edit[] View/Ord File[] Edit[] View/Ord File[] View/Ord File[] Edit[] View/Ord File[] View/O		Preview palette menu
P Caper N.G. (Roc. Ret. Hol. 10. N. Not 2 and two more used to 0 more more that D and D		an mag () ≤ 2 → 2 → 2 → 2 → 1 → 1 → 1			Dock to Top Dock to Left Dock to Right Close





Thumbnail palette menu

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In Frod	uction

Filters

Image Adjustment



Viewing Images Full Screen

To hide the menus, toolbar, and palettes and view the current image full screen, click the 🔀 button in the toolbar.

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Use the left and right arrow keys on the keyboard to view additional images.





Full-screen display is also available in the multi-preview view (page 13).





Compare images

Compare before and after images

To exit the full-screen display and return to the previous view, click the **S** button or press the **Esc** key.





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Side-by-Side Comp	arison					

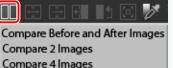
To compare multiple images side-by-side, or to compare before and after views of the same image, click the **III** button in the toolbar and choose **III** (**Compare Images**) or **III** (**Compare Before and After Images**).

Multi Preview button

 $\Box \leftarrow \rightarrow \circlearrowright \boxplus \blacksquare \Box \bigotimes \square \boxdot \boxdot \blacksquare \blacksquare \square \boxtimes \boxtimes \checkmark \overset{\leftarrow}{\rightarrow} \neq \overset{\bullet}{\gg} @ \textcircled{} \Box \blacksquare \overset{\leftarrow}{\rightarrow} \checkmark \curlyvee \checkmark$ Compare Images
Compare Before and After Images

🖉 Compare Images

On computers with at least 4 GB of memory and a 64-bit operating system, clicking the **m** button displays a menu that offers a four-image option in addition to the standard two-image compare images option.



Compare Images (🖽)

Compare images side-by-side. When either image is zoomed or scrolled, the other will be zoomed or scrolled to match.



When you click the B button, the current image will be displayed on the left. To select images for display, click the desired preview box and then click a thumbnail. Only images in the same folder can be selected for side-by-side comparison.





The selected preview is highlighted in white. Image adjustments apply only to the selected preview, as do the histogram and navigation palette displays.



No adjustment



Exposure compensation set to +1.0 EV

Comparing Images in the Preview Display

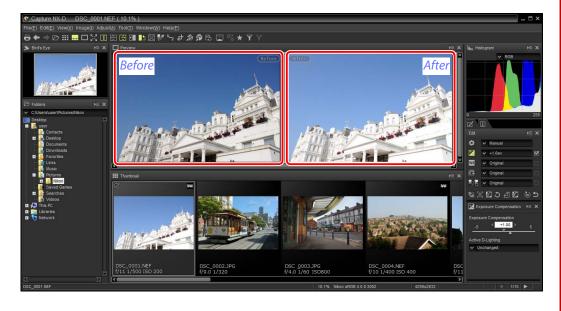
Clicking the D button opens the images side-by-side in the preview display.



Introduction	Viewing Pictures	Filters	Image Adjustment	Other Features	Menu Guide	
					Side-by-Side Compo	arison

Compare Before and After Images (🖽)

Compare before and after views of the current image.



■ Updating the "Before" Image

To update the "before" image to reflect current image adjustments, click the button in the toolbar. The "before" image can then be used as a reference for subsequent changes to image adjustment settings.

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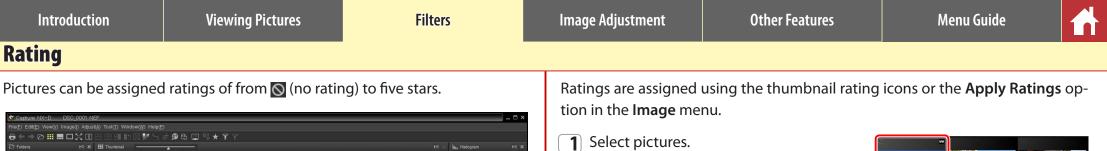


Restoring the "Before" Image

To restore the "before" image to its unadjusted state, click the **s** button in the toolbar. The "before" image will be restored to the state the image was in when first opened in Capture NX-D (note that any changes made to JPEG and TIFF images in other applications since they were last opened in Capture NX-D will not be reset).

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Capture NX-D Reference Manual

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4 . A. L.

C_0003.JPG 4.0 1/60 ISO80

DSC_0007.TIF f/7.1 1/320 ISO400

DSC_0008.TIF f/11 1/800 ISO400

64 7

✓ To select multiple pictures, keep the Ctrl key (or on Mac computers, the ℜ/command key) pressed while clicking each image in turn. To select two pictures and all images between them, click the pictures while pressing Shift.



2 Click the 🔁 icon and choose a rating of from 🔕 (no rating) to five stars.



To assign the picture a three-star rating, click the third star from the left. The first three stars will be highlighted in yellow.



"Apply Ratings"

Selected files can also be rated using the **Apply Ratings** option in the **Image** menu.

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Labelling					
	to sort and locate, you can a ach with its own unique col	assign them labels of from "0 or.	' Ratings are assigned in the Image menu.	using the thumbnail label io	cons or the Apply Labels option
C Capture NX-D Field Edits View(N) Image() Adjust(A) Tool() Window(M) Heip() Folders P III III III III IIII IIII IIIIIIIIII	Image: Solution of the second seco	Image: Construction of the state of the	(or on Mac compressed while clic lect two pictures click the pictures 2 Click a label (①; when the cursor through "9" (②).		<complex-block><complex-block><text></text></complex-block></complex-block>

🖉 <u>"Apply Labels"</u>

Selected files can also be rated using the **Apply Labels** option in the **Image** menu.

Filtering To filter pictures using criteria such as ratings, labels, and click the rule button in the toolbar.	photo information			
	photo information			
Filters The options for the Model, Focal Length, Shutter Speed, F Number, and ISO Sensitivity filters are restricted to values	E C C C C C C C C C C C C C C C C C C C	 Click the to button Click the to button Click the to button Cloose a filter or Choose a filter or If you select multiper to rexample, selected criters Only pictures that the selected criters Only pictures that the selected criters 	an to display the filter bar.	<image/>
				er, click the 🝸 button in the toolbar. 🕆 中 🕺 🕮 🗈 🚍 🧐 ★ 🍸 🛐

Filters



The Edit Palette

Most image adjustments are performed using the edit palette, which consists of a tool list, an adjustments palette, and tool buttons.

The Tool List

The tool list contains the items listed below. All but **Tone/Tone (Detail)** apply exclusively to RAW (NEF/NRW) images.

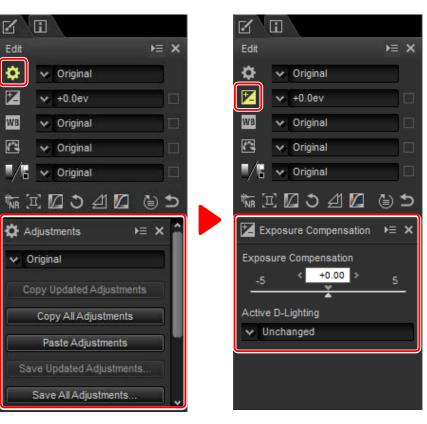
Exposure Compensation	<u>Page 20</u>
WB White Balance	Page 21
Picture Control	Page 22
Tone/Tone (Detail)	Page 24

Settings for these tools can be selected from the pull-down menus. Selecting **Original** restores settings to the values in effect when the image was first opened in Capture NX-D. At other settings, a check () appears in the box to the right of the pull-down menu, and changes can be hidden by removing the check from the box ().

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The Adjustment Palette

Use the adjustment palette to make detailed adjustments. Clicking a tool button or an icon in the tool list displays settings for the selected item.



Tools that have been modified using the adjustment palette are identified by the label **Manual** in the tool list pull-down menus.

Filters

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Image Adjustment

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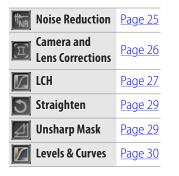
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The Edit Palette

Tool Buttons

The following tools can be accessed using the tool buttons at the bottom of the edit palette. Note that some of these tools can be used only with RAW (NEF/NRW) images; for information, see the section for each tool.



These tools are accessed by clicking the buttons and adjusting settings in the adjustment palette. The buttons for tools that have been modified from default values are highlighted in yellow (e.g.,

The Revert Button

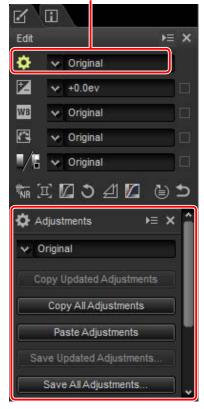
Click the revert ("Revert to Original State") button to reset all tools and restore the image to the state it was in when first opened in Capture NX-D (note that any changes made to JPEG and TIFF images in other applications since they were last opened in Capture NX-D will not be reset).

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Revert button

The Adjustment Manager Tool

Use the adjustment manager tool to copy adjustments to other images or save current settings for later use (page 32).



Fine-Tuning Multiple Images

Image adjustments apply simultaneously to all the images currently selected in the thumbnail list.



Introduction	Viewing Pictures	Filters	Image Adjustment	Other Features	Menu Guide	
Exposure Compens	sation (RAW Images)				/	
Adjust overall exposure, darker.		Edit ► × ♥ Original ▶ +0.0ev ₩B ♥ Original		5.0 and –5.0 EV, incremente the Exposure Compensatio adjustment palette.		▶≡ ×

The image adjustment palette also offers an **Active D-Lighting** menu that can be used to bring out details in highlights and shadows.







Extra high

Active D-Lighting

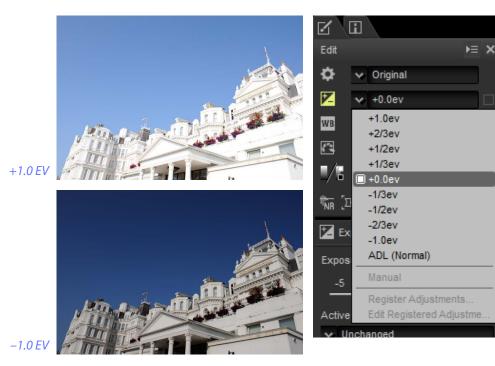
Active D-Lighting is available only with RAW images taken using cameras that support Active D-Lighting.

The pull-down menu in the tool list can be used to choose from values between +1.0 and -1.0 EV.

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V Original

V Original



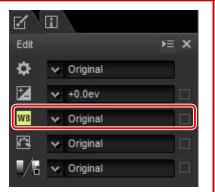
Filters

Image Adjustment

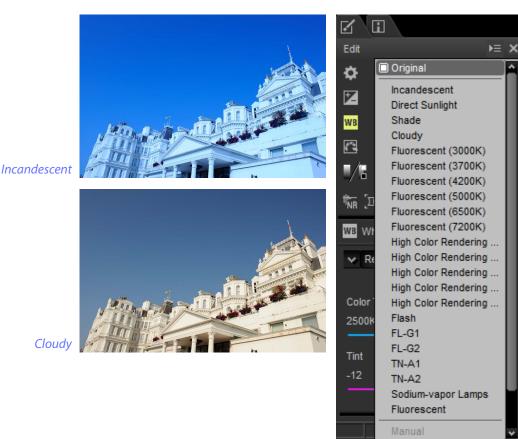


White Balance (RAW Images)

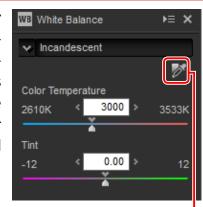
Adjust white balance.



The pull-down menu in the tool list offers a choice of preset values.



White balance can be fine-tuned using the **Color Temperature** and **Tint** controls in the image adjustment palette. **Tint** can be set to values between –12 and +12: choose lower values for less green and more magenta, higher values for the opposite effect. The range of values available for **Color Temperature** vary with the option selected for white balance.



Gray point sample tool

White balance can also be set by sampling the image: click the **(Gray Point Sample Tool**) button and click anywhere in the image to sample a single pixel, or drag the cursor over the image to use the average color value for the selected area. White balance for the entire image will be adjusted so that selected pixel or area takes on a neutral gray color.



Blue area sampled

White balance adjusted to give blues a gray cast and the overall image a "warm" cast

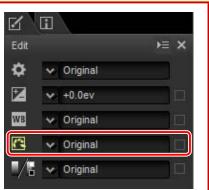
Filters

Image Adjustment



Picture Control (RAW Images)

Adjust Picture Control settings.



The pull-down menu in the tool list offers a choice of preset Picture Controls.

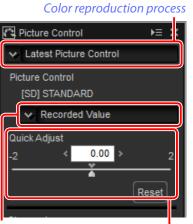


The controls in the image adjustment palette can be used to choose a color reproduction process, perform quick adjustments to the selected control, or fine-tune individual Picture Control parameters.

■ Color Reproduction Process

Choose one of the following options:

- Latest Picture Control: Colors are processed using the Picture Controls for the latest Nikon cameras.
- **Camera compatible**: Colors are processed using the Picture Controls for the camera that took the picture.



Selected Picture Control Quick Adjust

Quick Adjust

Drag the slider left or right to mute or heighten the effect of the selected Picture Control, or click **Reset** to reset the slider to zero. Quick adjust affects all Picture Control settings simultaneously and cancels any changes made separately to the individual parameters. It is not available with neutral, flat, or monochrome Picture Controls.

Introduction	Viewing Pictures	Filters	Image Adjustment	Other Features	Menu Guide
					Picture Control (RAW Images)
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Introduction

Viewing Pictures

F<u>ilters</u>

Image Adjustment

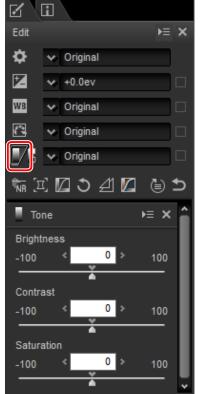
Tone/Tone (Detail)

Adjust overall brightness and contrast, or make adjustments that affect only highlights and shadows.

Tone

Clicking the icon shown at right displays the following controls in the image adjustment palette:

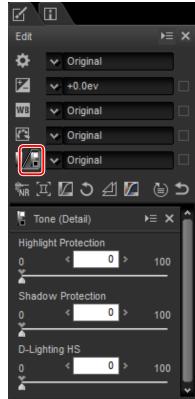
- **Brightness**: Adjust overall brightness. Choose from values between –100 and +100: the higher the value, the brighter the result.
- **Contrast**: Adjust overall contrast. Choose from values between –100 and +100: the higher the value, the greater the contrast.
- **Saturation**: Control the vividness of colors. Choose from values between –100 and +100: the higher the value, the more vivid (saturated) the result.



Tone (Detail)

Clicking the icon shown at right displays the following controls in the image adjustment palette:

- **Highlight Protection**: Preserve details in highlights. Values range from 0 to 100: choose higher values to reduce brightness in highlights.
- Shadow Protection: Preserve details in shadows. Values range from 0 to 100: choose higher values to increase brightness in shadows.
- **D-Lighting HS**: Brighten shadows in backlit or poorly-lit pictures or reduce loss of detail in highlights. Higher values reduce the contrast between shadows and highlights.



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Image Adjustment



Tool Buttons

Use the tool buttons for access to tools not in the tool list.

Noise Reduction

Selecting this tool displays the following controls in the image adjustment palette:

- Noise Reduction: Enable or disable noise reduction.
- Method: Select Faster for faster processing, Better Quality or Better Quality 2013 for more accurate noise reduction. Selecting Better Quality 2013 allows separate Intensity and Sharpness adjustments for Luminance and Color (RAW images only).
- Intensity: Choose from values between 0 and 100. The higher the value, the smoother the image and the less visible the artifacts caused by image "noise".
- Sharpness: Choosing high values for Intensity may smooth the image to the point that details are lost; this can be countered by increasing Sharpness.
- Edge Noise Reduction (RAW images only): Make outlines more distinct by reducing the occurrence of noise artifacts around edges.
- Astro Noise Reduction (RAW images only): Reduce the occurrence of randomly-spaced bright pixels in long exposures.

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Moise Reduction
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Color
Intensity
Sharpness
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Edge Noise Reduction
Astro Noise Reduction

Better Quality 2013

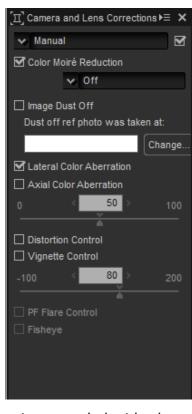
Better Quality 2013 excels in reducing color noise at short wavelengths and over evenly-colored areas of the image.

Camera and Lens Corrections

Selecting this tool displays the following controls in the image adjustment palette:

- **Color Moiré Reduction** (RAW images only): To reduce color moiré (an image artifact visible where regular patterns overlap), select this item and choose an option from the menu.
- **Image Dust Off** (regular- or large-size RAW images only): Compare photos with reference data recorded using the camera to mitigate the effect of dust on the low-pass filter. Click **Change...** to choose the NDF file containing the desired data. For more information on recording reference data, see the camera manual.
- Lateral Color Aberration: Reduce lateral color aberration (colored fringes and halos) in RAW images. At default settings, this option is not applied to JPEG and TIFF images.
- Axial Color Aberration: Reduce blurred colors caused by axial color aberration. Choose from values between 0 and 100: the higher the value, the greater the effect.
- **Distortion Control**: This option uses the lens information recorded with photographs to reduce the barrel distortion associated with wide-angle lenses and the pin-cushion distortion associated with telephoto lenses.
- **Vignette Control**: Adjust for variations in peripheral illumination that occur with some lenses. Choose from values between –100 and +200: the higher the value, the greater the increase in brightness at the edges of the image.
- **PF Flare Control**: Reduce ring flare, circular flare, and other flare effects caused by bright light sources in the frame.





• Fisheye: Process photos taken with AF DX Fisheye-Nikkor ED 10.5mm f/2.8G or AF DX Fisheye-Nikkor ED 16mm f/2.8D lenses so that they appear to have been taken with a wide-angle rectilinear lens.

Image Dust Off

Follow the steps below to perform Image Dust Off.

- 1 Click **Change...** If the current folder contains an Image Dust Off reference file, a message will be displayed; proceed to Step 2. If no message is displayed, proceed to Step 3.
- **2** To perform Image Dust Off using the file in the current folder, select **Yes**. Otherwise, select **No** and proceed to Step 3.
- **3** Select a reference file and click **OK** to perform Image Dust Off.

🖉 Image Dust Off

Dust changes position from day to day; if possible, use reference data recorded in the last 24 hours. If the camera offers image sensor cleaning, use only data recorded after the most recent cleaning, as cleaning can change the position of the dust.

Image Adjustment

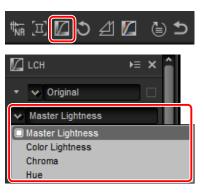
LCH

The LCH color space models color using values for lightness (a property similar but not identical to brightness or luminance), **c**hroma (color saturation), and **h**ue. These parameters can be accessed via the channel menu in the image adjustment palette when the LCH tool is selected.

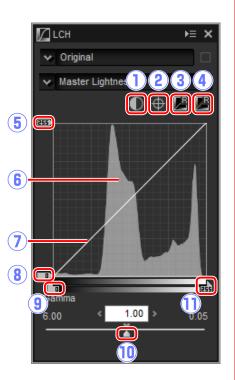
Master Lightness

Adjust overall lightness without affecting chroma or hue.

- (1) **Auto Contrast**: Increase contrast by setting the white and black points to exclude a set proportion of the brightest and darkest pixels in the image.
- (2) Add Anchor Point: Click this button and then click the image in the preview palette to add a point to the curve corresponding to the lightness of the pixel under the cursor.
- (3) **Reset Current Channel**: Reset the master lightness curve to linear.
- (4) **Reset All Channel**: Reset the master lightness, color lightness, chroma, and hue curves to linear.
- (5) White-point output-level slider: Choose the maximum output level (white point).
- (6) **Histogram**: The histogram shows how the pixels in the image are distributed with respect to lightness. The horizontal axis corresponds to lightness (in the range 0–255), the vertical axis to the number of pixels.



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- (7) Luminosity curve: The slope and shape of the curve determines the lightness of the image in the corresponding portion of the tone range.
- (8) Black-point output-level slider: Choose the minimum output level (black point).
- (9) Black-point input slider: Choose the minimum (black point) input level.
- **10** Gamma: Choose the midpoint (gamma value).
- (1) White-point input slider: Choose the maximum (white point) input level.

Color Lightness

Adjust the lightness of selected colors without affecting chroma or hue. This can be used, for example, to brighten the blue of a dark skies.

- (1) Add Anchor Point: Click this button and then click the image in the preview palette to add a point to the curve corresponding to the value for the pixel under the cursor.
- (2) **Reset Current Channel**: Reset the color lightness curve to linear.
- (3) **Reset All Channel**: Reset the master lightness, color lightness, chroma, and hue curves to linear.
- (4) Color lightness curve: Moving a point on the curve upwards makes colors in the affected portion of the color range brighter, while moving it downward makes the affected colors darker.



(5) Width slider: Adjust the width of the curve that passes through the selected point, increasing or decreasing the range of colors affected by the change.

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■ Chroma

Introduction

Increase or decrease color saturation over the entire image or a portion of the color range, making colors more or less vivid.

- (1) Add Anchor Point: Click this button and then click the image in the preview palette to add a point to the curve corresponding to the chroma of the pixel under the cursor.
- (2) **Reset Current Channel**: Reset the chroma curve (4) to linear.
- (3) **Reset All Channel**: Reset the master lightness, (5) color lightness, chroma, and hue curves to linear.
- (4) Chroma curve: Moving a point on the curve upwards makes colors in the affected portion of the color range more vivid, while 6 moving it downward makes the affected colors less vivid (grayer).
- (5) **Output slider**: Increase or decrease the saturation of all colors in the image.
- (6) Width slider: Adjust the width of the curve that passes through the selected point, increasing or decreasing the range of colors affected by the change.
- (7) Exclude Gray: Increasing chroma may make neutral colors (grays) seem oversaturated. Select this option to increase chroma without affecting grays.

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Hue

Map selected colors in the original (input) image to a specific range of colors in the final (output) image. One application might be to deepen the colors in a pale blue sky.

- (1) Add Anchor Point: Click this button and then click the image in the preview palette to add a point to the curve corresponding to the hue of the pixel under the cursor.
- (2) Reset Current Channel: Reset the hue curve to linear.
- (3) **Reset All Channel**: Reset the master lightness, color lightness, chroma, and hue curves to linear.
- (4) Scale: Click to change the vertical scale from 60 ° through 120 ° to 180 ° and back again 7 (in this case the degrees refer to a 360 ° color wheel). Increasing the scale increases

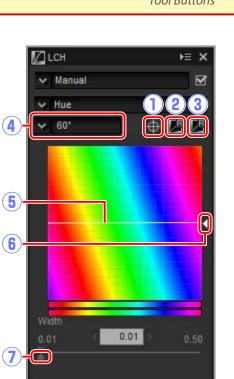
the range of hues visible in the display, while decreasing the scale increases precision.

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- (5) Hue curve: Select a point on the curve that corresponds to the desired input color and drag it up or down until it intersects with the desired output color.
- (6) **Output slider**: Modify the hue of all colors in the image.
- (7) Width slider: Adjust the width of the curve that passes through the selected point, increasing or decreasing the range of colors affected by the change.







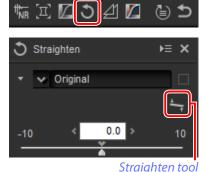
Width

Exclude Gray

Tool Buttons

Straighten

Straighten pictures by up to $\pm 10^{\circ}$. Choose lower values to rotate the picture to the left, higher values to rotate it to the right.



To straighten pictures manually, click the straighten tool in the image adjustment palette and drag the cursor parallel to a line in the preview (this option can not be used with thumbnails; page 10). The image will be rotated by up to $\pm 10^{\circ}$ to make the reference line horizontal or vertical, and the degree of rotation will be displayed in the text box in the image adjustment window.



Drag cursor parallel to reference line



Image rotated to make reference line horizontal

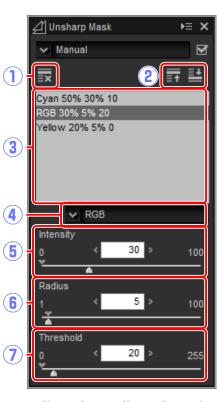
Unsharp Mask

Increase sharpness by making edges more distinct. The contrast of edges is increased while other areas are left untouched.

- (1) **Delete**: Delete the currently-selected mask from the unsharp mask list.
- (2) Move Up/Move Down: Move the currentlyselected mask up or down in the unsharp mask list.
- ③ Unsharp mask list: A list of unsharp masks, identified by color channel, intensity, halo width, and threshold (e.g., "Red, 50%, 10%, 0"). Masks apply in the order listed; to change the order, use the up/down but- 4 tons.
- (4) **Color**: Choose the color channel to which (5) the unsharp mask applies.
- (5) Intensity: The amount edge contrast will be (6) increased.
- (6) **Radius**: The greater the radius, the wider the edges in the sharpened image will appear.
- 1 Threshold: The limit at which sharpening will

be applied. If the threshold is zero, sharpening will apply to all pixels in the image. Increasing the threshold increases the amount of contrast that must be present between pixels before the mask will be applied, with the result that only more distinctly contrasting edges will be affected.

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Straightening does not change the dimensions of the image. Any portions of the image that do not fit in its original dimensions are cropped out, while areas that have been added to the image are filled in black.

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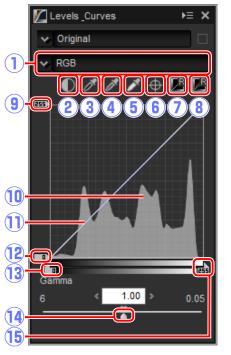
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Levels & Curves

Adjust contrast, tone (brightness), and color balance. Adjustments can be made over the

entire image or to specific portions of the tone range (for example, the gamut of a specific printer, monitor, or other output device), allowing enhancements to be made without sacrificing detail.

- (1) **Channel**: The current color channel.
- (2) Auto Contrast: Increase contrast by setting the white and black points to exclude a set proportion of the brightest and darkest pixels in the image, creating a curve that makes optimal use of the output tone range while preserving details in shadows and highlights.
- (3) **Set Black Point**: Click this button and then click the image in the preview palette to set the black point for the red, green, and blue channels to the value for the pixel under the cursor.
- (4) **Set Neutral Point**: Click this button and then click the image in the preview palette to set the midpoint for the red, green, and blue channels to the value for the pixel under the cursor.
- (5) **Set White Point**: Click this button and then click the image in the preview palette to set the white point for the red, green, and blue channels to the value for the pixel under the cursor.
- (6) Add Anchor Point: Click this button and then click the image in the preview area to add a point to the curve corresponding to the value of the pixel under the cursor.
- ⑦ Reset Current Channel: Reset the curve for the current channel to linear.



- (8) Reset All Channel: Reset all curves to linear.
- (9) White-point output-level slider: Choose the maximum output level (white point). Dragging the slider down lowers the brightness of the brightest pixels.
- (1) **Histogram**: The histogram shows how the pixels in the image are distributed with respect to brightness. The horizontal axis corresponds to brightness (in the range 0–255), the vertical axis to the number of pixels.
- (1) **Tone curve**: The slope and shape of the curve determines the brightness of the image in the corresponding portion of the tone range.
- (2) **Black-point output-level slider**: Choose the minimum output level (black point). Dragging the slider up increases the brightness of the darkest pixels.
- (3) **Black-point input slider**: Any pixels in the portion of the tone range to the left of the black point are output at the minimum output level. Dragging the slider to the right steepens the curve and enhances contrast but may cause loss of details in shadows.
- (14) Gamma: Dragging the slider to the left increases the brightness of mid-tones, while dragging it to the right makes mid-tones darker.
- (5) White-point input slider: Any pixels in the portion of the tone range to the right of the white point are output at the maximum output level. Dragging the slider to the left steepens the curve and enhances contrast but may cause loss of details in highlights.

🖉 Sampling the Current Channel

By default, the black point, white point, add anchor point, and auto contrast controls respectively set the black point, anchor points, white point, and contrast for all channels. To apply these controls only to the current channel, press **Ctrl** (or on Mac computers, the **option** key) while clicking the control.

Copying Adjustments Image adjustments can be copied and applied to other pictures, speeding the process of enhancing pictures taken under similar conditions. Adding Adjustments to the Tool List Current settings can be added to the menus in the tool list. Image adjustment paleter. Here we have setters in the adjustment paleter. Here we have setters posure compensation (page 20) to +1.50. Select Register Adjustments from the pull-down menu in the tool list. Select Register Adjustments from the pull-down menu in the tool list. Select Register Adjustments from the pull-down menu in the tool list. Select Register Adjustments from the pull-down menu in the tool list.	Introduction	Viewing Pictures	Filters	Image Adjustment	Other Features	Menu Guide
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tings in the adjustment palette. Here we have set exposure compensation (page 20) to +1.50. Select Register Adjustments from the pull down menu in the tool list. Select Negister Adjustments from the pull down menu in the tool list. Select Negister Adjustments from the pull down menu in the tool list. Select Negister Adjustments from the pull down menu in the tool list. Select Negister Adjustments from the pull down menu in the tool list. Select Negister Adjustments from the pull down menu in the tool list. Selecting Edit Registered Adjustments from the pull-down menu displays a dialog where you can re name or delete previously-saved settings.	Current settings can be	added to the menus in the t	ool list.			Rename
Active Edit Registered Adjustme	 Select a tool from the tings in the adjustment of the set exposure competition. Select Register Ad, 	ne tool list and adjust set- ent palette. Here we have nsation (page 20) to +1.50. justments from the pull-	Exposure Compensation _5 _5 Active D-Lighting ✓ Unchanged Edit ✓ Manual ✓ Expos ADL (Normal) –5 Manual	menu and can n tures.	ow be applied to other pic-	Edit >≡ × Image: Constraint of the system Manual Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constreicon Image: Constraint of the

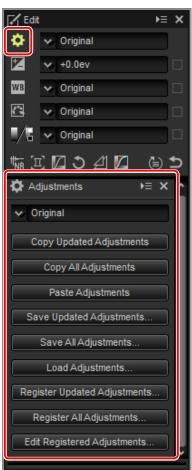
Filters



The Adjustment Manager Tool

The adjustment manager can be used to apply multiple adjustments simultaneously.

- **Copy Updated Adjustments**: Copy all adjustments that have been changed since the current folder was selected.
- Copy All Adjustments: Copy all adjustments.
- Paste Adjustments: Apply adjustments copied using Copy Updated Adjustments or Copy All Adjustments to the currently-selected image or images.
- Save Updated Adjustments: Save all adjustments that have been changed since the current folder was selected.
- Save All Adjustments: Save all adjustments.
- Load Adjustments: Select an adjustments file saved using Save Updated Adjustments or Save All Adjustments and apply it to the currently-selected image or images.
- **Register Updated Adjustments**: Any adjustments that have been changed since the current folder was selected are saved and added as an option to the adjustment manager pull-down menu.
- **Register All Adjustments**: All current adjustments are saved and added as an option to the adjustment manager pull-down menu.
- Edit Registered Adjustments: Reorder, rename, or delete adjustments previously added to the adjustment manager pull-down menu.

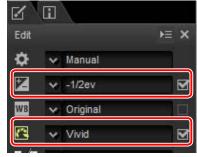


Copying Adjustments to Other Pictures

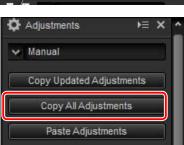
Follow the steps below to copy adjustments and apply them to other images.

Adjust settings in the edit palette. Here we have set exposure compensation (page 20) to -1/2 EV and selected the **Vivid** Picture Control (page 22).





Click the adjustment manager icon and select Copy Updated Adjustments or Copy All Adjustments from the options in the adjustment palette. Here we have selected Copy All Adjustments.



3 Select images. In this example, the selected image has already been adjusted using the exposure compensation (page 20) and white balance (page 21) tools.

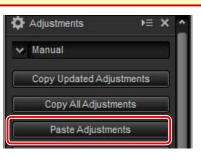


Edit)≡ >
\$	~	Manual	
Ż	*	-1.0ev	N
WB	~	Shade	
R	~	Original	

Image Adjustment

Copying Adjustments

4 Click the adjustment manager icon and select **Paste Adjustments** from the options in the adjustment palette.



The adjustments copied in Step 2 are applied to the images selected in Step 3. Because we selected **Copy All Adjustments** in Step 2, exposure compensation changes to $-\frac{1}{2}$ EV while white balance reverts to **Original**.



Had we selected **Copy Updated Adjustments** in Step 2, the exposure compensation and Picture Control for the selected image would have been set to the values selected in Step 1, while white balance would have remained at the value selected in Step 3.

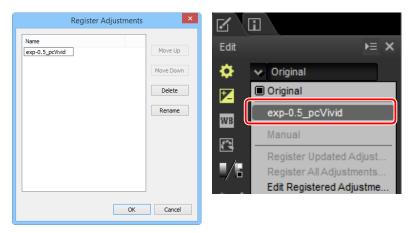
Copying Adjustments to Other Computers

The Save Updated Adjustments and Save All Adjustments options save image adjustments to a file which can be copied to other computers. The adjustments can then be applied to selected pictures on the other computers using Load Adjustments.

(€) → ↑ 🚺 + 1	This PC > Documents	~ C	rents	p	
		. 0			
Organize - New fol	der			H •	
★ Favorites ■ Desktop B Downloads M Recent places	Name	No items match you	Date modified ar search.	Туре	
1 This PC					
🗣 Network					
	٢				
File name: 🛅	d				
Save as type: Dev	elop Setting File(".rxd)				
Hide Folders			Save	Cance	

Adding Adjustments to the Adjustment Manager

Use the **Register Updated Adjustments** and **Register All Adjustments** options to add adjustments to the adjustment manager pull-down menu.



Copying Adjustments from RAW to JPEG or TIFF Images

When adjustments are copied from RAW (NEF/NRW) to JPEG or TIFF images, exposure compensation, Picture Controls, and other settings that are available only with RAW images will not be applied. Introduction

Viewing Pictures

Filters

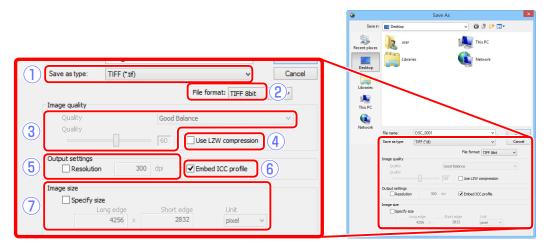
Image Adjustment



To save RAW (NEF/NRW) images in JPEG or TIFF format, click the button in the toolbar.

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A dialog will be displayed where you can choose a file format and adjust such settings as compression and image size.



1) **Save as type**: Choose JPEG or TIFF.

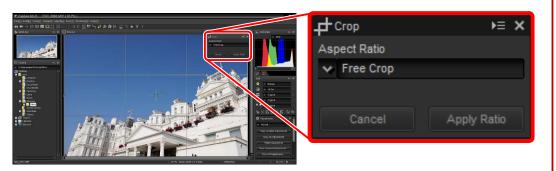
- (2) File format (TIFF only): Choose the bit depth for TIFF images (8 or 16 bits per channel).
- (3) **Quality** (JPEG only): Use the slider or pull-down menu to choose a value between 0 and 100. The higher the value, the lower the compression ratio and the higher the image quality; the lower the value, the higher the compression ratio and the smaller the file size.
- (4) Use LZW compression(TIFF only): Compress TIFF files using "lossless" LZW compression.
 - **V** LZW compression may sometimes increase file size when applied to 16-bit images.
- 5 Resolution: Select this option to choose the output resolution.
- (6) **Embed ICC profile**: Select this option to embed the current color profile in the image.

⑦ Specify size: Select this option to resize pictures saved in the new format. The new size can be entered in pixels, centimeters, or inches. When you enter a value for either Long edge or Short edge, the remaining value will automatically be adjusted to maintain the original aspect ratio.

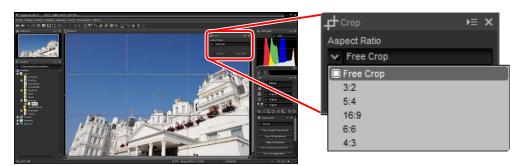
Introduction	Viewing Pictures	Filters	Image Adjustment	Other Features	Menu Guide		
Cropping Pictures							
To crop unwanted areas	from images, click the 🕖 b	utton in the toolbar.	2 Drag the corners	of the crop to resize it witho	out changing the aspect rati	io. If	

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The crop palette will be displayed. Follow the steps below to crop images.



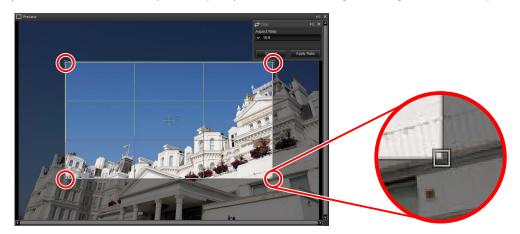
1 Choose an aspect ratio in the crop palette and click **Apply Ratio**. A crop with the selected aspect ratio will appear over the preview image.



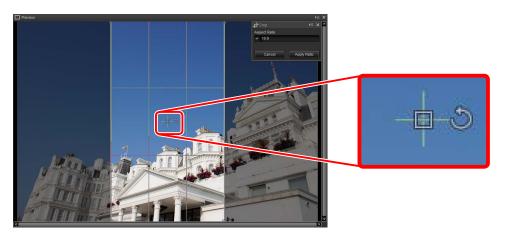


77 The aspect ratio can be changed after you have resized and positioned the crop.

you selected Free Crop in Step 1, you can also drag the edges of the crop.



To position the crop, drag the + icon in the center. The crop can be rotated 90 ° by clicking the **5** icon.



The crop can only be rotated in increments of 90 °.

Introduction	Viewing Pictures	Filters	Image Adjustment	Other Features	Menu Guide 🚮
					Cropping Pictures
	in the toolbar to crop the in		Crops are not applied to the the # button in the toolba		can be changed at any time by clicking
Ресен					

Crops are applied when images are converted to JPEG or TIFF (page 34).

Introduction	Viewing Pictures	Filters	Image Adjustment	Other Features	Menu Guide
Batch Processing				1	
adjustments on all picturing images in a selected file 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ures in a selected folder an format. Batch processing of Batch Process bider rsyser/Pictures lude subfolders ents aly current adjustments iustments to apply: bity ality Good Balance ality Good Balance alit	Browse Browse	 0 and 100. The high igher the image ratio and the small (5) Use LZW compression (sion. ✓ LZW compression n (6) Resolution: Select th (7) Embed ICC profile: Selimage. (8) Specify size: Select th new size can be envalue for either Loucally be adjusted to (9) Destination: Select Use solic already exists in thing a number to the from this option and the from this option and select Use solic already exists in thing a number to the from this option and select Use solic already exists in the from the from	gher the value, the lower the quality; the lower the value ler the file size. TIFF only): Compress TIFF files hay sometimes increase file size whis option to choose the out lect this option to embed the his option to resize pictures ntered in pixels, centimeter ng edge or Short edge , the o maintain the original aspect Jse source folder to save the a different folder, remove the a different folder, remove the a different folder, the process of file name (if a file with e current folder, the process on file name); to choose different	put resolution. he current color profile in each s saved in the new format. The rs, or inches. When you enter a remaining value will automati-

Introduction	Viewing Pictures	Filters	Image Adjustment

Menu Guide

Batch Processing

Clicking **Start** starts processing and displays a progress dialog. Progress can be viewed in the **Queued** and **Finished** tabs.

Batch Process Status 3/	15 ► X
Queued	Finished
Source	Status
DSC_0001.NEF	20%
DSC_0002.JPG	
DSC_0003.JPG	
DSC_0004.NEF	
DSC_0005.NEF	
DSC_0006.NEF	
DSC_0007.TIF	~
2	3
Automatically Show/Hide	
Qua	und .

Batch Process Status 3/	15 ► X
Queued	Finished
Source	Saved file 🔶 🔺
DSC_0001.NEF	DSC_0001_0000
DSC_0002.JPG	DSC_0002_0000
DSC_0003.JPG	DSC_0003_0000
DSC_0004.NEF	DSC_0004_0000
DSC_0005.NEF	DSC_0005_0000
DSC_0006.NEF	DSC_0006_0000
DSC_0007.TIF	DSC_0007_0000
2	(4) (3)
Automatically Show/Hide	
Finisl	hed

Queued

- 1 Source: A list of the files that are awaiting processing or have been processed.
- (2) Automatically Show/Hide: Removing the check from this option hides the progress dialog. The progress dialog can be displayed by clicking the gebutton in the toolbar.

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- (3) **Delete**: Click to remove the file selected in the **Queued** tab from the queue, or to delete the log for the file selected in the **Finished** tab.
- (4) **View folder**: Open the destination folder in the operating system file browser.

Color Efex Pro

If the source contains files modified using the Color Efex Pro plug-in for Capture NX 2 or Capture NX, a message will be displayed and the images will not be processed.

File Conversion

If multiple files are selected when the button in the toolbar is used to export files in another format (page 34), the files will be exported as a batch process. Adjust settings as described for items (3) through (9) on page 37.

Convert Sele	ected Files (Run as Batch Process)
Image quality Quality Quality	File format: JPEG V Good Balance V 60 Use LZW compression
Output settings Resolution 3	00 dpi ICC profile
Image size Specify size Long edge 4256	Unit pixel V
Destination Use source folder Save in: C:\Users\user File name: DSC_0001_00	
	Start Cancel

Introduction	Viewing Pictures	Filters	Image Adjustment		ent	Other Features	Menu Guide
Printing Pictures							
	nter connected to the comp e toolbar. The "Print" dialog	outer, select the pictures an	d Th	e "Print"	Dialog		
		# ≫ ∰ B ╦ ☆ ★ Ÿ Ÿ	•	Print Type	 Index Pri Standard 	: Print one picture per page. nt : Print multiple images per page (<u>p</u> Photo Sizes : Print pictures at a standa the number of pictures printed on ea	ard photo size. Capture NX-D automatically
	Print Type: Fu	IPage v		Printer	Click Setti	ngs to choose the printer and paper	size and adjust other printer settings.
	Printer: Paper: Letter	a suder see	Pri	Printer Type	Choose In	kjet when printing on an inkjet print	er.
	Printe Type: Presh hosty: Copies: Page Layout	Settrop Indjet V Quality V I I	inter Setup	Print Priority		image for faster printing, or Quality	se Speed to use the preview data embed- to use the original image data for higher
	Resize Image	100 %		Copies	Choose th	e number of copies of each page prir	nted.
				Rotate to fit	Rotate pic	tures to print them at the largest pos	sible size.
	Redate to fit Crop inspect fit Bedgraund Color: Bedgrau	vohe v 0 v pt 1 v		Crop images to fit	Pictures an cropped o	-	rtions that do not fit in the print area are
	Print Information Print Information Print Information Print Information Print Pr	Settrop	Page	Background Color	Choose th	e background color. Choose White t	o print with no background.
, ,		e and click Print to print th		Border width		e width of the borders printed around ackground color). Choose 0 to print	d the image (the color of the borders varies without borders.
picture as shown in the i	oreview.						

Copies of

each image Print

Information

Adjust settings as described on the following page and click **Print** to print the picture as shown in the preview.

Notes on Printing

Pictures can not be printed from the full-screen display.

To print to a JPEG file, click **File Output**.

The most recently-used settings are recalled when the print dialog is next displayed.

Print the file name, date of recording, or photo information under each picture (page 40).

Choose the number of copies of each photo printed.

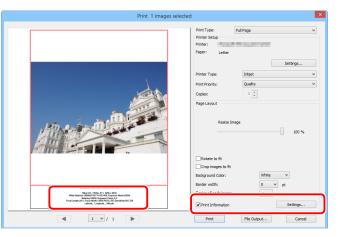
Filters

Image Adjustment



Printing Image Information

To choose the information printed under each picture, select **Print Information** in the "Print" dialog (page 39), click **Settings**, and adjust the settings described on the following page.



		Advance	d Pri	int Inform	ation	Settings		×
Date/	Time Shot	Metadata	Head	der / Footer				
	ate Shot							
	Time Sho	ot						
Posi	tion:							
	nside Top R	ight						
•	nside Botto	m Right						
0	Outside Bott	om Right						
Fo	ont Settings	:						
М	licrosoft Sar	ns Serif	\sim	Regular		 ✓ Auto 	~	
Sa	mple							
Γ			= 11 A P	2014 06:08				
			0/14/2	2014 00:08	5.27.00			
,								
						ОК	Cance	el

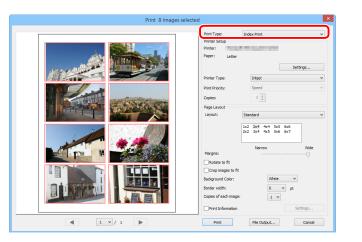
Advanced Print Information Settings

Dat	Date Shot	Print the date of recording in the position selected for Position .
e/Tir	Time Shot	Print the time of recording together with the date.
Date/Time Shot	Font Settings	Choose the font, style, font point size, and color used to print the date/time stamp. The results can be previewed in the "Sample" area.
	Metadata	Choose the file and photo information printed with each picture. The font, style, and font point size can be selected in the "Font Settings" area and previewed in the "Sample" area.
	Header	Enter the text and choose the alignment for the header that will be printed at the top of each page.
Header/Footer	Page Number	Choose whether to print the page number and the total number of pages and select the position and alignment. The page number can be positioned at the page Top (in the header) or Bottom (in the footer).
Footer	Footer	Enter the text and choose the alignment for the footer that will be printed at the bottom of each page.
	Font Settings	Choose a font, style, and font point size for the header, footer, and page number. The re- sults can be previewed in the "Sample" area.

V Print Information

Print information is not rotated when **Rotate to fit** is selected in the "Print" dialog. Metadata that does not fit in the print area will be omitted.

Introduction	Viewing Pictures	Filters	Image Adjustment	Other Features	Menu Guide	
Index Prints				-		
To print multiple images	s per page, select Index Prin	t for "Print Type" in the "Print	" Image Size			



dialog (page 39) and choose the number of pictures printed per page.

Standard

Choose the number of pictures per page from a list box. The size of the pictures is automatically adjusted according to the option selected.



$A2 \times 4$ layout

Image Size

Pictures are printed at the size entered for "Width" and "Height" (the minimum size is 20.0 mm \times 20.0 mm and the maximum the same as the page size). The number of pictures per page is automatically adjusted according to the size selected.



Pictures printed at 50 mm × 50 mm

Column and Row

Choose the number of columns and rows printed per page (the minimum is 1 and the maximum 10). The size of the pictures is automatically adjusted according to the options selected.



 $A 3 \times 3$ layout

Filters

Preferences

- To modify the default behavior of Capture NX-D, select **Preferences...** in the **Tool** menu (or on Mac computers, the Capture NX-D menu).
- (1) **Maximum cache capacity**: Select a cache size.
- (2) Clear Cache: Clear the cache.
- (3) Specify cache folder: Select this option to choose a cache folder using the Browse... button. Use the Existing cache handling menu to choose what to do with the existing cache.
- (4) **Default RGB color space**: Choose the default RGB color space for image display.
- (5) Use this profile when printing: Select this option to choose a color profile for printing from the Printer profile menu. Choose the Intent from Perceptual and Relative colorimetric.

Preferences						
	Cache Settings					
(Maximum cache capacity: 2 GB (Default) V Clear Cache					
ļ	Existing cache handling: Delete cache folder					
	Existing cache handling: Delete cache folder Browse					
	Color Management Settings					
	Default RGB color space: Nikon sRGB 4.0.0.3002	~				
	Use this profile when printing	ר				
(Printer profile: No profile	×				
	Intent: Perceptual	<u> </u>				
	Open With Application Add					
	Name Location					
4	Delete					
	Place Open With file in:	41				
4	C:\Users\user\Pictures Browse	J				
	Levels Curves					
Ċ	Auto-contrast dip: Black: 0.50 % White: 0.50	%				
Ì	Dropper sample size: Point sample V	٦				
Ì	_Other Settings					
	Display preview image faster					
	Show a NEF/NRW + JPEG image as separate files Color reproduction process: Camera compatible	–				
Ì	Maximum thumbnail width: 320 V 10	اك				
	OK Cance					
	OK Cance					

- (6) **Open With Application**: Edit the list of applications that can be accessed via the "Open with" options the toolbar (page 8) and Image menu (page 44).
- **7 Place Open With file in**: Before being opened in other applications, images are converted to 16-bit TIFF. Use this option to choose where the converted files are stored.
- (8) Auto-contrast clip: The levels and curves auto contrast option (page 30) increases contrast by setting the white and black points to exclude a set proportion of the brightest and darkest pixels in the image. Choose the percentage of pixels excluded by the new Black and White points.

- (9) Dropper sample size: Select the size of the area sampled by the levels and curves sampling controls (page 30). Choose from Point sample (a single pixel), 3×3
 Average (the average of an area 3 pixels square) and 5×5 Average (the average of an area 5 pixels square).
- (1) **Display preview image faster**: If this option is selected, Capture NX-D will generate preview data as modifications are made for faster preview display.
- (1) Show a NEF/NRW + JPEG image as separate files: If this option is selected, the RAW (NEF/NRW) and JPEG images created when a photograph is taken with a "RAW (NEF/NRW) + JPEG" option is selected for image quality will be listed as separate files, as will other files with the same file names but different extensions.
- (2) Color reproduction process: Choose a color reproduction process (page 22).
- (13) Maximum thumbnail width: Choose the maximum thumbnail width, in pixels (page 10).

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Menu Guide						
The Capture NX-D Menu (Mac Only)			The Edit Menu			

- About Capture NX-D: Display the product version number.
- **Preferences**: Open the Capture NX-D preferences dialog (page 42).
- Quit Capture NX-D: Quit Capture NX-D.

	About Capture NX-D	
	Preferences	жκ
	Services	
	Hide Capture NX-D Hide Others Show All	
	Quit Capture NX-D	жQ
_		

Capture NX-D

The File Menu

- New Folder: Create a new sub-folder in the current folder.
- Rename Folder: Rename the current folder.
- **Open in Explorer** (Windows)/**Show in Finder** (Mac): Open the current folder in the operating system file browser.
- **Open with ViewNX-i**: View the current image or images in ViewNX-i. The images are displayed in their current state including any changes made using Capture NX-D and, in the case of NEF/NRW (RAW) images, without conversion to TIFF. This option is only available if ViewNX-i is installed.
- **Convert Files**: Convert the currently-selected image or images to JPEG or TIFF format (page 34).
- Run Batch Process: Perform batch processing (page 37).
- Rename: Rename the current image.
- Page Setup: Adjust printer settings.
- Print: Print images (page 39).
- Exit (Windows only): Exit Capture NX-D.

New Folder	Ctrl+N
Rename Folder	
Open in Explorer	
Open with ViewNX-i	
Convert Files	Ctrl+E
Run Batch Process	Ctrl+B
Rename	
Page Setup	
Print	Ctrl+P
Exit	Alt+F4

- **Undo**: Undo the most recent operation.
- **Redo**: Redo an operation after performing **Undo**.
- **Cut/Copy/Paste**: Cut, copy, or paste the current selection.
- **Delete**: Delete the current selection.
- Select All: Select all images in the current folder.
- **Invert Selection**: Select all images in the current folder that are not currently selected and deselect any images that are currently selected.
- Deselect All: Deselect all images.
- Select File: Select all files in the current folder that match the criteria chosen in the Select File submenu.

The View Menu

- Go: Navigate the folder hierarchy.
- View Mode: Choose how images are displayed (page 10).
- Thumbnail Size: Choose the thumbnail size (page 10).
- Sort Thumbnails by: Sort thumbnails.
- Filter: Filter images according to selected criteria (page 17).
- Zoom In/Zoom Out/View at/Fit to Pane: Zoom the preview in or out.

Edit(<u>E</u>)	
Undo	Ctrl+Z
Redo	Ctrl+Y
Cut	Ctrl+X
Сору	Ctrl+C
Paste	Ctrl+V
Delete	Delete
SelectAll	Ctrl+A
Invert Selection	Ctrl+Shift+A
DeselectAll	
Select File	+

View(<u>V</u>)	
Go	•
View Mode	•
Thumbnail Size	+
Sort Thumbnails by	+
Filter	Ctrl+F
Zoom In	Ctrl++
Zoom Out	Ctrl+-
View at 100%	Ctrl+1
View at 50%	Ctrl+8
View at 25%	Ctrl+9
Fit to Pane	Ctrl+0

Filters

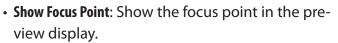
Menu Guide

The Image Menu

- Next Image/Previous Image: View the next or previous image in the current folder.
- **Open With**: Open the current image in another application. Use the **Register** option to add applications to the menu (page 42).
- **Rotate**: Rotate the current image 90 or 180 degrees.

П	lage(i)	
	Next Image	RightArrow
	Previous Image	LeftArrow
	Open With	×
	Rotate 90°CW	
	Rotate 90°CCW	
	Rotate 180°	
	Show Grid	Ctrl+G
	Show Focus Point	Shift+F
	Show Lost Highlights	Shift+H
	Show Lost Shadows	Shift+S
	Apply Labels	•
	Apply Ratings	+
_		

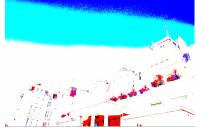
• Show Grid: Display a grid over the preview.







- Show Lost Highlights: View areas of the image with the maximum value for brightness and in which details may have been lost to overexposure ("washed out"). A different color is used to show the lost highlights for each of the RGB, red, green, and blue channels.
- Show Lost Shadows: View areas of the image with the minimum value for brightness and in which details may have been lost to underexposure. A different color is used to show the lost shadows for each of the RGB, red, green, and blue channels.





• **Apply**: Label (<u>page 16</u>) or rate (<u>page 15</u>) selected images.

The Adjust Menu

- Revert to Original State: Reset all image Adjust(A) adjustments and restore the picture Rever to its original state. Rever
- **Revert to Last Saved State**: Initialize the settings file (<u>page 3</u>), cancelling all changes made in Capture NX-D.
- **Copy Updated Adjustments**: Copy only those adjustments that have been changed since the current folder was last opened.
- Copy All Adjustments: Copy all adjustments.
- Paste Adjustments: Apply to the current image adjustments copied using Copy Updated Adjustments or Copy All Adjustments.
- **Save Updated Adjustments**: Create a file containing only those adjustments that have been changed since the current folder was last opened.
- Save All Adjustments: Save all adjustments to a file.

Revert to Original State	Ctrl+R
Revert to Last Saved State	Ctrl+Shift+R
Copy Updated Adjustments	
Copy All Adjustments	Ctrl+Shift+C
Paste Adjustments	Ctrl+Shift+V
Save Updated Adjustments	
Save All Adjustments	Ctrl+Shift+S
Load Adjustments	Ctrl+Shift+O
Cancel Crop Area	

Introduction	Viewing Pictures	Filters		Image Adjustment	Other Features	Menu Guide	
						1	Menu Guide
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